THE IMPACT OF THE NEW "MUST-CARRY" RULES ON THE CARRIAGE OF MICHIGAN PUBLIC TELEVISION STATIONS ON MICHIGAN CABLE SYSTEMS

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On August 7, 1986 the FCC announced a new rule regarding the mandatory carriage of local broadcast television stations on local cable systems. This study addresses the effect of the provisions of this rule pertaining to the carriage of public television stations in the state of Michigan on Michigan cable systems.

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INTRODUCTION

The Communications Act of 1934 and its amendments are the primary instruments of authorization for the regulation of radio and television communications in the United States. The breadth and depth of this regulation has evolved with the technology being regulated and the political influences on and of the regulators.

One of the recurrent themes expressed in the regulation of U.S. broadcasting is that of "localism."[1] The expressed responsibility of local broadcasters is to address the broadcast information needs of a defined locality and be accountable to the federal government in the local ascertainment and fulfillment of those needs.

A common analogy used is that broadcasting is the electronic equivalent to newspapers, and as most communities have locally published and distributed newspapers custom fit to the local needs and tastes, so too should each community have a local television station assessing and addressing the needs and desires of the individuals being technically served.

The continued ability of a broadcast entity to serve its local community is of course more than just a matter of governmental authorization, but of economic viability. The Federal Communications Commission, in its role as regulator, often addresses the economic concerns of broadcasters in light of the needs of the community being served. When broadcasters have been unsatisfied with the scope of regulatory protection, they may go to the federal courts for redress. The influence of the court decisions on the development and implementation of broadcast rules and regulations is significant and certainly has resulted in more than one creation or redirection of FCC policy.

It is, however, one policy that was significantly influenced by the judiciary that is the primary subject of this project; that of mandatory carriage of local broadcast signals on local CATV systems. Developed as a means of protecting local broadcast interests of the people, the rule was implemented by the FCC in 1965. Though redefined and modified numerous times, the basic concept of giving local broadcast entities protection against effective exclusion from reaching the community it serves and is supported by, remained intact until July 1985 when another federal court decision eliminated the mandatory carriage rule.

The District of Columbia Federal Appeals Court decision in the Quincy case left local broadcasters' ability to reach and serve their local communities at the discretion of local cable operators. Where loss of cable subscribers means loss of significant revenues, the very viability of the station and its service could be in jeopardy.

The potential inpact of Quincy appeared to be far more ominous than the loss of mandatory carriage would actually be, given that the economic interests of cable operators impose a carriage incentive that does keep local stations on local cable systems.

There existed particular concern however, over the effect that the loss of mandatory carriage would have on the Public Broadcasting Service stations, locally and nationally. The fear was that the economic carriage incentive would not apply to PTV stations. The very role of PTV in providing special and minority interest programming might increase the likelihood that PTV stations would be dropped.

Seldom does a PTV station draw near the viewership of commercial stations and thus, the apparent economic demand that cable operators may be looking at in carriage decision making, is lessened.

After a year of industry coalitions, congressional lobbying and proposed rule-makings, the FCC announced two new sets of rules created to address the concerns expressed post-Quincy, and hopefully withstand the Quincy Court's First Amendment objections to the old must-carry rules.[2] Though not yet published as of this date (and not in effect until 30 days after publication), the new must-carry rules are designed as an interim step between the old must-carry regulatory environment and the deregulated environment called for in Quincy. The new rules, with a built-in five year sunset provision, call for a subscriber education program in the use of concurrent cable and user owned and maintained antenna receiving systems, and mandatory carriage provisions that place limits on the number of local commercial and educational stations a cable system must carry.[3]

Though originally conceived as an examination of the impact of the Quincy decision on the carriage of Michigan public television stations on Michigan cable systems, the FCC announcement of new must-carry rules on August 7, 1986 may have postponed for at least five years, the ultimate impact of Quincy. With only minor changes in structure, this study is now directed toward the examination of the impact of the new mandatory carriage rules on the carriage of Michigan public television stations on Michigan cable systems. Though the new must-carry rules have been criticized for not providing enough protection for public television carriage, the findings of this study indicate that in the state of Michigan, the net impact of the new rules will result in increased options in viewing PTV programming by some subscribers and a five year opportunity for one Michigan public television station to establish itself in an expanded urban market.

The analysis of information gathered will be directed toward the likely impact in these four areas:

1. Carriage change of MPTV by cable systems
2. Carriage change of MPTV by MPTV stations
3. Subscribers lost or gained to each of the seven MPTV systems
4. Subscribers denied MPTV service

What this study will not address is economic impact on PTV stations, other broadcasters or cable operators. The scope of a quantitative economic analysis dwarfs this project in comparison. It seems probable that industry studies in this area will be forthcoming once the situation has stablized with regard to the new federal rule-making.

The results of this project should be of direct interest to MPTV station management, to those interested in the dynamics of technological regulation, or those following the evolution of First Amendment applications.

BACKGROUND:

A Brief Look at CATV, PTV and Must-carry

CATV began in the late forties as an aid to the reception of potentially available TV signals to communities that were "shadowed" by terrain.[4] These early systems typically provided an antenna on a nearby mountain where no more than five signals could be received and then, via cable, transported to the community below. As noted by Shapiro, CATV's early development in remote communities was enhanced by an FCC freeze on new television license authorities in the late 40's and early 50's.[5] The FCC during this period was developing a new comprehensive allocation policy for television broadcasting and cable entrepreneurs found a market eager to view the new technology.

CATV was not significantly regulated by the FCC until the 1963 decision of Carter Mountain Transmission Corporation v. FCC. Carter Mountain Transmission Corporation in 1959 filed with the FCC a request for a license to deliver two distant television signals to cable systems in the service area of a Riverton, Wyoming television station. The Riverton station opposed the license on grounds of economic injury due to duplicative programming fragmenting the local audience and reducing advertising revenues. It was also feared that the cable system could choose not to carry the local station, thus effectively denying subscribers the local signal.

The FCC noted, "often weighing the benefits to be derived from the cable system's increased output against the potential loss of the community's only local television's broadcasting service, the Commission determined that the proposed operations would not be the public interest."

The Commission concluded, "we will not shut our eyes to the impact upon the public service which is our ultimate concern, when it appears that the grant may serve to deprive a substantially large number of the public of a service."[6] The D.C. Court of Appeals affirmed the FCC decision and utilization of economic factors in making its decision to avoid public injury in areas under its purview. The federal court avoided, however, the question of the Commission's jurisdiction over CATV but did affirm the Commission's examination of impact of CATV on local broadcasters in subsequent decision-making within its jurisdiction--i.e. licenses to deliver distant signals to CATV operators.

In regard to must-carry, in the Federal Court's concluding comment it supported the FCC's invitation to Carter Mountain to show that the cable system in question would not provide duplicative programming and would carry the local station. The conceptual foundation for mandatory carriage had thus been laid.

The Carter Mountain decision was followed by an inquiry for proposed rule-making and subsequent issue of the First Report and Order on cable television in 1965. At this point, FCC regulation of microwave-fed systems was established and the rules for the mandatory carriage of grade A signals issued.[7]

In 1966, the Second Report and Order was issued and the coverage was extended to all cable systems and the range criteria increased to include all cable systems within a grade B signal area of a station.[8]

The jurisdictional aspects of the FCC rule-making were upheld in 1968 by the U.S. Supreme Court in the U.S. v. Southwestern Company.[9]

In 1968 the FCC initiated a more comprehensive inquiry into the regulation of cable (docket number 18397). Included here was a proposed scheme for signal carriage rules that was instituted before adoption.[10]

This basic scheme expanded and formally adopted in the Third Report and Order on cable in 1972 established the must and may carriage rules that were operative into the 1980's. Commercial stations must (or shall) carriage was based on a complicated set of rules using market rating, distance from cable system, grade B signals present and viewership. Educational and public broadcasters received separate treatment. All cable systems are required to carry all educational or public stations within 35 miles or that are within grade B signal contours. This rule included translators and repeaters except where signal duplication existed. The FCC noted its intent in rule-making in prefacing "to assure that local stations are carried on local cable television systems and are not denied access to the audience they are licensed to serve . . . " Stations may be carried without restriction, except at the objection of a local educational station operator.[10]

Further, in its 1979 economic inquiry into cable, the FCC notes, "This freedom to carry such stations was intended to foster diversity, and in the case of educational stations, was to afford the widest possible dissemination of educational and public television programming."[12]

The must-carry rules for educational and public stations remained unchanged until the Quincy decision in 1985. The carriage rules in general, did change with regard to commercial stations with deregulation in such areas as distant signal importation, leap-frogging and application to small systems.[13]

Numerous studies were conducted during the 1970's on cable regulation with the general consensus that little justification could be found for the extent of regulation present. For example, in the studies by Park and Noll-Peck-McGowan of audience diversion due to cable signal importation, only small losses (15 percent) to VHF broadcasters would be incurred in multi-signal markets with UHF audiences gaining about 20 percent in similar situations.[14]

These findings were confirmed in the FCC's own economic impact inquiry conducted from 1977-79. This study on the impact of the elimination of may-carry signal carriage rules concluded, "that the incremental audience diversion from the elimination of the signal carriage rules will be less than 10 percent in all but the most extreme cases."[15] Massive station failures seemed slim, at best.

One must note, however, that these studies were of commercial audience diversion, not of public television audiences, and that the carriage rules examined were of signal importation, not of mandatory carriage. I mention these studies to highlight what was being examined in the deregulatory years following the 1972 cable rules, and that the interests being addressed were those of commercial broadcasters and cable operators. In regard to the elimination of distant carriage and leap-frogging rules, the Commission stated, "In assessing these rules and their impact upon the public, we weighed elements of consumer welfare, distributional equity and 'localism,' and concluded that the marketplace would secure the public interest more surely than administrative rules."[16]

A commercial or marketplace orientation in deregulation reasoning is again reiterated by the FCC in support of its new cable policies when noting, "Audience diversion can be important enough to threaten many broadcasters only if nearly everyone in a market subscribes to cable and shifts his viewing to new cable services. Yet if this phenomenon occurs, it can only be because cable services are generally regarded as superior by nearly all households--in which case it is difficult to find a public interest rationale for continued protection of over-the-air broadcasters."[17] The 1979 inquiry into the economic relationship between television broadcasting and cable television marks the beginning of the end of commercial broadcast television interest priority in cable matters.

Cable interests made further gains via Congress with the Cable Communications Policy Act of 1984.

Until Quincy, the must-carry rules for educational and public stations remained intact, as did the majority of must-carry rules for commercial broadcasters. Must-carry rules' survival to 1985 may have been due to several factors. First, some vestige of "localism" and broadcast protectionism may still have existed within the FCC regardless of the rhetoric of the 1979 economic report. Failure to move must-carry rules to the marketplace may not have been oversight. Second, the protection and advocation of UHF TV spectrum usage was historically present and UHF is benefitted by cable carriage.[18] Third, and possible most significant, the interests of cable operators were not negatively affected until decreased regulations and improved technology (notably, elimination of leap-frogging rules and improvements in satellite distribution technology) made the cable channels more valuable. The economic control of a now limited resource was worth a challenge.[19]

Cable's greatest political success, the Cable Communication Policy Act of 1984, did not directly address must-carry issues, other than specifying definite responsibility for cable regulation in general with the FCC. The challenge to must-carry would take a more common route for change of FCC rules; administrative adjudication spillover into the federal court system. The Quincy-Turner case sets the present-day situation and will be discussed shortly.

What is missing in the "market-place" approach to regulation and missing in all the studies on regulation reform, is consideration of the nonmarket-place service (or public good) delivered, via PTV. Supporters of public television identify the historical background of legislation and administrative rule-making that recognizes the public need for, and subsequent establishment and continuance of, the public broadcast system, as evidence of a significant governmental interest that needs to be protected.

Channels for educational usage have been reserved by the FCC in all its regulated domestic broadcast services. In television this dates back to the 1952 allocation order where 242 television channels were reserved for educational television in designated markets.[20] There have been additions since.

Federal funding dates back to the Educational Television Facilities Act of 1962, but it was the Public Broadcasting Act of 1967 that established the Public Broadcasting Service and the Corporation for Public Broadcasting. In this act, Congress declared, "it furthers the general welfare to encourage public broadcasting services which will be responsive to the interests of people, both in particular localities and throughout the United States, and which will constitute an expression of diversity and excellence in that it is necessary and appropriate for the Federal Government to complement, assist and support the national policy that will most effectively make public broadcasting services available to all citizens of the United States . . . "[21]

Other supportive legislation included the Public Broadcasting Financing Act of 1975, the Educational Broadcasting Facilities and Telecommunications Demonstration Act of 1976, the Public Telecommunications Financing Act of 1978 and the Public Broadcasting Amendment Act of 1981. In the latter act, PBS was directed to provide, "that which is unavailable anywhere else and to develop programs that will meet the needs of underserved and diverse audiences throughout the country."[22]

The congressional mandates for meeting the diverse needs of local audiences where they can not be commercially met is the basis of a "public good" argument supporting public television. The federal recognition of a public good appears to be well established and PTV's continued need for federal funding is supported in the 1982 Final Report of the Temporary Commission on Alternative Financing for Public Telecommunications.[23]

The Public Broadcasting System has grown to 314 stations, providing a variety of local, state, educational network and local educational services to 97 percent of the nation's households.[24] Public television has about 60 percent of its stations operating in the UHF band. The technological handicap of UHF is somewhat offset by cable carriage, thus cable carriage is strongly desired. The Quincy-Turner Decision lessened the assurity of PTV carriage and public good delivery.

The Current Must-Carry Situation

The mandatory carriage of local systems on local cable systems has been a fact of existence for the vast majority of cable systems from their start.[25] New sources of programming (HBO, The Movie Channel, ESPN, etc.) and the means of economical delivery via satellite has provided cable with the ability to deliver much more than better quality reception of more television stations. Cable can offer a choice of nonbroadcast programming that its subscribers may choose or not to pay for and view. The breadth of choices is a function of demand for the service, the recognition of this demand by cable operators and the ability to deliver the service. One significant limitation on ability is the system's channel capacity and a second is the reduction of that capacity by federal mandatory carriage and other regulations.[26]

Systems with few channels may find that mandatory carriage leaves them with little or no ability to offer alternative nonbroadcast programming that may increase cable penetration and profits. The ability to make their own carriage decisions had traditional marketplace economic incentives . . . and from July 1985 until now was a First Amendment-protected Constitutional right.

In 1979, after conducting a survey of viewer preferences, the cable system of Quincy Washington filed a partial waiver request of the mandatory carriage rules in order to drop three duplicated network signals of broadcasters located in Spokane. The FCC refused the waiver, Quincy dropped two of the stations and began to appeal the waiver denial.[27] Claiming that the must-carry rules violate the First Amendment to the Constitution, Quincy refused to reinstate the two Spokane stations and was subsequently fined $5,000 for failure to comply. Quincy petitioned the federal court for relief. The court, discovering that Quincy Cable in the meantime had expanded its channel capacity and was now willing to carry the Spokane stations (but not on the basic tier), sent the case back to the FCC where the Commission reaffirmed its original decision.

Quincy petitioned the Federal Appeals Court once again. The year was 1984.

Meanwhile, Turner Broadcasting System, Inc. has petitioned the FCC to institute rule-making procedures to delete the mandatory carriage rules claiming they violated the First Amendment rights of cable programmers (like Turner), cable operators, and the viewing public. The petition was denied by the FCC and Turner petitioned for review of that denial. The Federal Appeals Court combined these two petitions in a joint decision. The Court stated "we have concluded and now hold that the must-carry rules are fundamentally at odds with the First Amendment and, as currently drafted, can no longer be permitted to stand."[28] The phrase "as currently drafted" has been viewed as an invitation for a more narrowly defined rule and the efforts towards that end will be reviewed shortly.

The Court's investigation and reasoning is as significant as the decision itself in that it identifies the reasoning framework and criteria for future rule-making development. The Court's view of the historical regulation of cable by the FCC was critical. It saw the FCC as broadcaster protectionist and its incursion into cable regulation with only that protection of "society's chosen instrument for the provision of video services" in mind.[29] The Court noted, "Almost from the beginning, the must-carry rules were a centerpiece of the FCC's efforts to actively oversee the growth of cable television in order to maintain the development of a system of free local broadcasting stations."[30]

The Court was particularly critical of the lack of consideration of such factors as number of must-carry channels occupied, the degree of programming duplication present and the channel capacity of the system.

The Court contended that the FCC developed the broadcaster protectionist regulations such as must-carry, without substantial evidence of the envisioned danger. The FCC defended itself noting that it would be inconsistent with its responsibilities to "withhold action until indisputable proof of irreparable damage to the public interest in television broadcasting has been compelled--i.e. by waiting until the bodies pile up before conceding the problem exists."[31]

What bothered the Court was that in the period after the 1965 First Report and Order, though some changes were made in the must-carry rules, the fundamental question of their basic premise was never addressed or substantiated. The Court pointed out that in the 1979 Economic Inquiry, the FCC admits that economic protectionist reasoning failed, consequently the distant signal and syndicated exclusivity rules were deleted. The Commission in the report stated that "continual regulatory intervention is not merely unnecessary, it is counter-productive." This line of reasoning, the Court held, could also be applied to must-carry.[32]

The fatal blow to must-carry would come, however, not in its arbitrary nature, but from its intrusion into First Amendment rights. In the historical context of cable and First Amendment issues, the Court identified the tendency to view broadcasting and cable regulations in the same category.[33] Recent challenges have faced a more differentiating court in issues such as limitation on nonbroadcast programming offered on cable. In Home Box Office v. FCC the Court upheld a First Amendment plea and struck down the rule because it failed the test of serving a "substantial governmental interest" and " no more intrusive than necessary to serve that interest."[34] The Quincy Court declared that the FCC "had not put itself in a position to know whether its fears about the effect of cable television on local broadcasting were real or merely fanciful" and that the rules were "grossly over broad, indiscriminately limiting the programming of cable systems whether or not the limits in fact serve to protect the interests, the rules purported to serve."[35] The Court in invoking O'Brien's "interest balancing test" concluded, "that the rules so clearly fail under that standard that we need not resolve whether they warrant a more exacting level of First Amendment scrutiny."

Also, any contention that must-carry rules are an "incidental burden on speech," the Court found unacceptable in that " the rules are explicitly designed to favor certain classes of speakers over others."[36] In short, the Court found that no substantial governmental interest was in jeopardy, warranting the must-carry rules and the rule itself was significantly damaging to First Amendment rights. In its concluding remark the Court stated that "when the Commission strikes this balance in favor of regulations that impinge on rights protected by the First Amendment, it assumes a heavy burden of justification . . . we have concluded that the Commission has failed to carry this heavy burden . . . moreover, because the must-carry rules indiscriminately sweep into their protective ambit each and every broadcaster, whether or not that protection in fact serves the asserted interest of assuring in the community the rules are insufficiently tailored to justify their substantial interference with First Amendment rights. . . we stress that we have not found it necessary to decide whether any version of the mandatory carriage rules would contravene the First Amendment. We hold only that in their current form they can no longer stand."[37] This qualification opened the door for the current situation surrounding proposed rule-making. The decision was appealed to the Supreme Court and denied certiori[38] on June 9, 1986.

The reaction to Quincy was mixed. The cable groups were elated, the commercial broadcasters cautious (particularly the independents) and the PBS factions furious.[37] Cable with its political and now judicial backing seemed to be in the dominant position in its formerly "ancillary" relationship to broadcasters and broadcasting. The political reality of the situation, however, dictated that an accord somewhat short of "unconditional surrender" be struck. Cable interests feared a possible regulatory or legislative backlash, and thus, willingly participated in talks to generate an industry agreement for submission for consideration as rule-making.

At the same time, PBS and its related organizations, National Association of Public Television Stations, and the Corporation for Public Broadcasting had their legal counsels focus their attention on what they viewed as a gross judicial oversight. In January 1986, CPB, NAPTS and PBS filed a joint comment to the Commission (MM Docket 88-349) with regard to amendment of Part 76 of the Commission's rules concerning carriage of television broadcast signals by cable television systems. The PBS group proposed a new rule requiring mandatory carriage without charge to the station of all PTV stations providing a grade B signal to any portion of a cable system's service area, excluding duplicative signals and limiting mandatory carriage of 12 or less channel systems to three stations.[40]

The PBS group's arguments were addressed towards the Quincy Court's considerations. A public interest argument was presented and "a substantial governmental interest" case developed. The PBS groups' proposed rule was contended to be narrow enough as to impose only an "incidental burden" on First Amendment rights. They argued that loss of mandatory carriage endangered both the local stations and PBS, itself, with reduced contributions to local stations and reduced offerings of programs from group programming purchases.[41] Local service arguments, diversity goal attainment and nation-wide coverage were presented as concepts endangered by loss of must-carry.

The "harms argument" is the weakest area in that there are no impact studies on public television of cable subscribers denied service. The PBS group notes that "such concrete evidence is difficult to develop; however, in large part because the Commission rules have been in effect for almost 20 years, a period corresponding with public television's greatest growth and development." They cited, however, that the data indicates the increased utilization of PBS service in cabled homes.[42]

They explained the lack of economic incentive for carriage in that PBS programming is not targeted for mass audiences, as is that of commercial broadcast and cable entities. The PBS group went to great lengths to differentiate PBS from the commercial networks in that the local selection of programming and timeslot offerings developed a much higher degree of PBS station-to-station differentiation and lack of duplication.

One possible alternative presented in the Quincy decision, was that utilization of an "A/B switch" could overcome the exclusion of a broadcast signal from cable. The PBS group held the view that this was not an effective means of overcoming a noncarriage defficiency.[43]

In March 1986, the commercial interests were being addressed in the creation and submission of the Joint Industry Agreement by the National Cable Television Association (NCTA), the Community Antenna Television Association (CATA), the National Association of Broadcasters (NAB), the Television Operators Caucus (TOC), and the Association of Independent Television Stations (INTV) to the FCC under Docket MM 85-349. Provisions of this agreement included mandatory carriage of all stations within 50 miles of the city of license that maintained a two percent share of viewing and a five percent net weekly circulation in noncabled homes by county tabulation. Excluded were all translators, low powered stations and repeaters, any duplicated signal or network. Limits on the number of must-carry signals would be established with 21 through 26 channel systems being required to carry no more than seven qualified local stations. Systems of 27 or greater channels would be required to fill no more than 25 percent of the available channels with local stations. Systems smaller than 21 channels would not be required to carry any local signals, whatsoever. Also, no charge would be levied for local signal carriage and carriage is dependent upon delivery of a good signal to the head end.[42]

Excluded from consideration here, was separate disposition of public television. PTV would be treated to the same signal carriage and viewing standards as commercial entities.

The PBS group responded to the FCC with a reply comment to the industry agreement. The unique nature of PTV was reiterated and the "marketplace" application danger to PTV discussed. Highlighted was the service deprivation argument and consequent impact on the role of PTV as envisioned by Congress and the FCC in the policies of localism, diversity of programming service, and nationwide delivery.

The PBS group also raised concerns about several technical aspects of the industry agreement, including the 50 mile--grade B signal contour differential and exclusion of nonprogram broadcast information services from mandatory carriage rules.[45]

A third group opposing all mandatory carriage rules is composed of the Department of Justice and the National Cable Television Association. Theirs is a First Amendment, leave it to the marketplace position.[46] Also responding to the industry agreement were the Motion Picture Association of America and others who supported a "grace period" for the new stations from viewing standard requirements.[47]

The role taken by Congress in this period was primarily passive. According to Electronic Media, however, lobbying efforts of the NAB did produce letters of support for the industry agreement and from some congressmen, including Senator John Danforth, R-Missouri; Chairman of the Senate Commerce Committee and Rep. John Dingall, D-Michigan; Chairman of the House Energy and Commerce Committee; and Rep. Tim Worth; Chairman of the House Telecommunications Subcommittee. Also, comments were made urging the abandonment of the A/B switch as a mandatory requirement for cable operators not carrying local signals.[48] This idea is supported however, by the senior counsel to the House Telecommunications Subcommittee, Tom Rogers and the Association of Independent Television Stations and the Television Operators Caucus.[49] The FCC refused to support the appeal of Quincy-Turner and took a cautious approach towards the inquiry/rule-making process.

On August 7, 1986 the FCC announced the intended adoption of a new must-carry rule with significant components presented in the proposed rule-making process.

Though not in a formally established text, highlights were made public and included a couple of personally unanticipated provisions. Most notable, is the inclusion of an A/B switch provision, that along with the new must-carry rules, will expire five years after adoption.

Specifically, the new FCC rules require cable systems to install "free of charge" to all new subscribers an A/B switch that will allow subscribers to view local television and broadcast signals directly off air via the subscriber's owned and maintained antenna system. For current subscribers, A/B switches must be offered with hook-up instructions at no cost or only charge for installation, if required. This will eventually allow cable systems to drop local broadcast stations, yet not technologically deny subscribers access to off-air signals. The new must-carry provisions include the mandatory carriage of at least one PTV signal of those available within 50 miles of the cable head end measured from the city of license for all cable systems with less than 54 usable activated channels and two PTV signals for 54 channel and greater systems. This provision included translators of 100 watts or greater.

For commercial broadcasters, cable systems with 20 to 27 usable activated channels, are required to carry seven (including one PTV) qualified signals. Larger systems must devote 25 percent of the available channels to qualified stations (including PTV provisions).

Besides distance, commercial stations must meet a viewing standard of two percent average share and five percent net weekly circulation unless they are within their first year of broadcasting, when the viewing standards are waived. All mandatory carriage is dependent upon the delivery of at least a Television Allocations Study Organization level two signal to the head end of the cable system.

The FCC's temporary A/B switch requirement and temporary must-carry rules are designed to educate the public (and cable system operators and manufacturers?) on the use of the dual receiving systems, thus opening the way for lessened or no must-carry requirements with continued assurance of available means for subscribers to choose to view local broadcast signals.

Should no new must-carry rule be developed to provide continued protection for PTV, this new rule may merely be a stay of execution of the Quincy decision. First industry responses to this announcement are mostly negative. Cable factions do not like the "cost and confusion" factor of the A/B switch situation and broadcasters, particularly the independents and the PBS factions, fear loss of carriage in markets where cable operators would have carriage decision-making.[50] Noteworthy is former FCC Chairman Charles Ferris' prediction of federal court overturn of the new ruling.[51]

Approaching Must-carry Research

This project is aimed at examining the impact of the impending change of mandatory carriage rules on Michigan public television stations on Michigan cable systems. The background research was primarily of a national scope, because this is a national issue, however, it is of local impact in varying degrees dependent upon the local situation.

In assessing the new rules potential impact on MPTV carriage at the local level it would be necessary to know the reasoning and intent of decision-making of Michigan cable operators. The criteria of each operator (or decision-maker) utilized in making a go/no-go carriage decision could be influenced by many factors included under the broad areas of economics, politics, personal philosophy, technology, geo-techno-political environments and information availability for decision-makers.

The first question to be addressed is "who are the decision-makers?" This is more elusive than at first glance. There are over 200 cable systems in Michigan serving over 800 communities. The systems are owned by local individuals, subscribers, municipalities, local companies and companies headquartered out of state. Many own systems nationwide. Anyone owning more than one system is known in the industry as a multiple system operator or MSO. In Michigan only thirteen of 218 systems of record are not MSO's. Of these thirteen, four are municipally owned and three are subscriber owned. Michigan cable systems are not characteristically "mom and pop" operations. In fact, the two largest operators account for nearly a quarter of the systems in the state and the ten largest operators account for almost half of the Michigan cable systems.[52]

Preliminary conversations with cable operators indicated that primary decision-making is made at the corporate level, not at the local level. Local assessment, including survey of subscribers or prospective subscribers may be utilized but decision-makers are upper management. In some instances it may be the actual owner of the company if privately held, or a programming or operations manager or vice president at larger publicly held corporations. These people are the primary source of information on intent to act and of actual criteria utilized.

The typical carriage decision-maker does look at such local system factors as channel capacity, off-air signal availability, duplication in programming on these signals, franchise agreements for local origination; public access, educational, governmental channels; leased channels, federal requirements and subscriber or potential subscriber desire with a multitude of these and other programming sources. Currently, there are over 100 various programming sources available via satellite direct to each cable system.[53]
If the cable system is saturated or filled to channel capacity with must-carry off-air signals, the only way to add desired services is by dropping off-air signals or expanding channel capacity.

It should be noted here that through the franchise process some input from the local communities can be achieved via the franchisor, the local government. Though essentially emasculated by the Cable Policy Communications Act of 1984, local governments can still place requirements in such areas as channel capacity, upgrading at renewal and very broad programming type categories.[54] This authority may offset some tendency for cable operators to "re-adjust their programming mix" rather than expand the channel capacity of their system.

By way of the industry data, at my discretion, I shall examine the new must-carry option factors present for each Michigan system. This requires the development of a cable system profile.

The Cable System Profile

The ideal cable system profile for carriage analysis would include extensive demographics of the served population, their service desires, and "goodness of fit" to the operating system. Though demographic information can be made available, the "goodness of fit" test requires a more extensive insight into preferences of viewers and potential viewers. One measure is available, however, that may indicate some degree of "goodness of fit." Cable penetration or percent of homes subscribed to cable of those offered cable in a given service area has been utilized in past studies for development of a demand function.[55] As it pertains to this study, pentration figures are of minimal use. They are more likely to correlate to urban/suburban area comparisons than to customer satisfaction with the service offering, thus indication of needed change. Of course, a change in penetration of an established system may be indicative of satisfaction, a change in the economy or the price of video cassette rentals.

A more targeted approach is to examine the viewership of the service area households, cable and noncable. Such rating services as Arbitron and Nielsen provide audience surveys that are extensively utilized in the broadcast industry. It is apparent in my discussions with cable operator that they are more likely to utilize other independent and less costly surveys, particularly in assessing potential demand for nonbroadcast programming, such as HBO, ESPN, the Weather Channel, CNN, local origination, etc.

I will not utilize extensive broad survey information in collating cable system profiles. I do have access, however, to a recent survey providing viewership by county of Michigan PBS stations, and this information will be shown in the profile and used in the analysis phase of this project. I shall also use, in assessing individual cable system must-carry situations, data, when available, on channel capacity, number of commercial network signal duplications, PBS stations carried, channels not utilized, number of subscribers, and market designation. No attempt will be made to gather information on viewer preference or differentiation in viewer preferences between systems. Where I have interviewed a system's management, I will utilize any information regarding corporate policy or expressed management bias in decision-making.

On Validity of Data Sources

After the FCC stopped compiling yearly reports from cable systems in 1980, available information on cable systems has been gathered by commercial firms such as Television Digest, A.C. Nielsen and Broadcasting Publications, Inc. They utilize operator surveys, FCC information and Copyright Office data. The data is often not complete and/or dated. Though the 1986 Television and Cable Factbook provides the foundation of data utilized in this study, I have corrected and updated information as it became known to me from such parallel sources as the Broadcasting/Cablecasting Yearbook 1985, information gathered by WFUM on cable carriage or my own phone interviews with cable system employees. Where reported information is obviously erroneous and not practical to correct, I shall exclude it from analysis. I do believe that a better data base could be developed and gathered but for the purposes of this project, I believe this system data is reasonably accurate enough to give validity to conclusions based upon it.

Information Analysis Process

The system profile will exist in a format such as this:

System name--typically of the principal city served.

System ownership--name of company, municipality, individual, subscriber

County(ies) served

Channel capacity--number of 6MHZ signals that can be delivered.

Unused channels--channels available but not in use

Number of duplicated commercial network signals--ABC, CBS, NBC

Number of satellite signals carried

Call letters of PTV stations carried--includes out-of-state PTV

Viewership in county of each PTV signal--circulation and share

Number of subscribers

Market rank--TV market rating by FCC determination as of March 1, 1986

Management expressed policy or intent--criteria bias expressed via phone interview

In order to assess the potential impact of the new mandatory carriage rules on the carriage of MPTV stations, I have devised a scheme of qualification tests or criteria for placing each cable system into a "most likely to change, indeterminate or not likely to change category." This is of course, a highly subjective technique and its development rests in my perception after numerous conversations with cable operators and extensive background research of the criteria to be applied by the "reasonable and prudent" cable operator in decision-making.

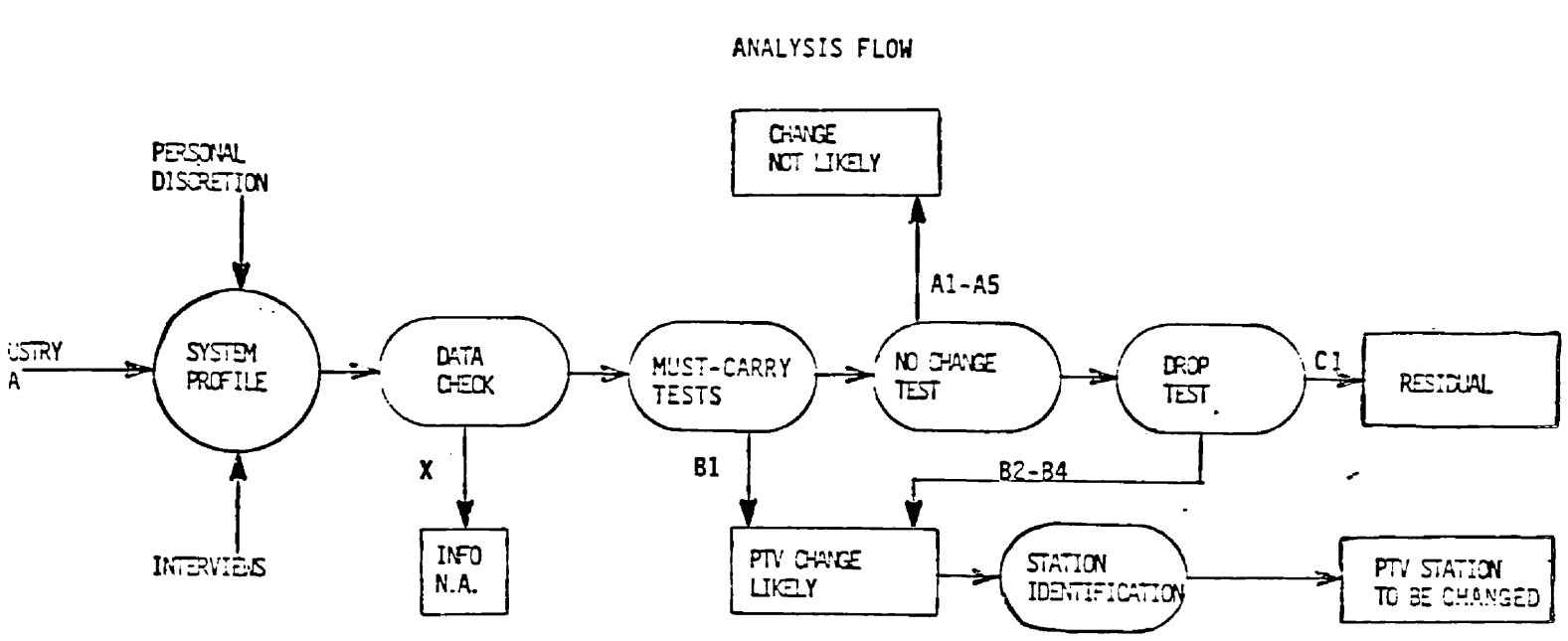

Figure 1

Figure 1 is a schematic of the operations to be performed and their sequence. The categorization would follow this process of raw data compilation into system profiles, then screening tests for not likely and most likely categories ending with the residual middle category. The most likely group can then be evaluated for identification for the actual stations that may be added or dropped based on a second set of criteria. The criteria used for each determination are listed in Tables I and II, respectively. The first screening is to drop systems with inadequate information from further consideration. This number is expected to be less than 10 percent. The remaining systems are examined for must-carry compliance and those that fail are placed in the likely to change category. The next set of tests pulls out those systems whose management expressed distinct philosophical stands in decision-making or actual intent in the current environment. The remaining systems will then be examined for direct inclusion into the not likely category because of large channel capacity, little or no mandatory PTV carriage or under-utilized channel availability.

Table I

A. Not Likely MPTV Change Criteria
   1. Only mandatory PTV carriage
   2. Management expressed intent to carry
   3. Only one PTV station; PTV significantly viewed
   4. Channel capacity is greater than or equal to 54
   5. PTV carriage is less than three and unused capacity is greater than one and/or duplicated networks greater than three

B. Most Likely MPTV Change Criteria (For Systems Not Qualified Above)
   1. Not meeting mandatory carriage requirements
   2. Management expressed intent to drop
   3. Saturated system with one or more PTV signals that are not mandatorily carried and duplicated networks less than three or satellite signals less than five.
   4. 12 channel or less system with one or more non-mandatory carriage PTV

C. Residual (Possibility Indeterminate)--All Not Categorized Above

The next round of tests screens the remaining systems for the most likely to change category. The basic premise is to identify situations where multiple or not significantly viewed PBS stations present a burden in limited capacity systems. These tests also recognize the criticality of saturation, absolute system size and commercial alternative drop possibilities available. At this point the remaining systems are categorized in the middle residual category where no strong motivation may be evident for change. The "likely" group will then be examined for identification, if possible, of the likely station or stations to be added to or deleted from carriage. See Table II.

Table II

Identification of Stations Added or Dropped

A. In cable systems that have failed minimum mandatory carriage regulations, the station or stations that may be added are determined by the following qualifications.

1. PTV stations whose distance to cable system franchise cities from the city of license is 50 miles or less and fall within or near Grade B contours.
2. If more than one station meets requirement one, the station with the larger county viewership or
3. If no significant viewership difference exists, the station closest to the cable community
4. Management expressed intent for any reason

B. For cable systems that have passed drop tests the station or stations to be dropped is identified by the following procedure.

1. Station or stations not mandatorily required whose principal city of license is

   a. More than 50 miles from the cable community or
   b. Stations whose Grade B contour is significantly outside the cable community (TASO approximation)

2. If more than one station meets the above qualifications, the station with the least viewership in the cable community is dropped and
3. If there is not a significant differential in number two, the station most distant from the cable community will be dropped.
4. If the situation is still not clear, common market inclusion and UHF v. VHF factors will be examined.

Stations identified by the criteria outlined in Table II as "adds" will have the cable system's total subscribers added to the station's potential cable viewership change and stations identified as "drops" will have the like figure subtracted. A net change figure will be determined and shown as well as simple station per cable system changes and systems per station changes. Where a carriage change results in no PTV service provided, separate recognition to this class will be shown. For all potential drops, a subjective degree of confidence rating will be made (high, medium or low confidence) and indicated. This rating is my personal evaluation of such factors as classification clarity, information completeness, data reliability or accuracy, and other non-valuated factors.

Anticipated Findings

The nature of this investigation where design formulation information is heavily integrated with evaluation information, provides me with a reasonably clear picture of the must-carry situation in Michigan and the likely results of my project. This is what I anticipate to find:

1. The likely number of systems to make MPTV carriage changes in the near future will be less than 20 percent and within these, the impact on households lost or gained to each station not significant.

2. Viewers denied service will be few and most likely in the northern lower peninsula and upper peninsula where older, smaller channel capacity systems with only one non-mandatorily required PTV signal may drop PTV in response to demand for other cable services.

System Profile and Data Summaries

Of the 218 cable systems listed in the 1986 Cable Factbook, adequate information for analysis was gathered on 209 systems. Of the nine systems dropped from analysis, five are new systems that may or may not be in operation. This includes the city of Detroit system which plans to begin operation in December of 1986.

The cable system profiles were initially compiled from the Cable Factbook and additional information and corrections were taken from collateral information sources previously mentioned, including telephone contact with employees representing over 40 percent of the systems analyzed and contact with a representative from all Michigan public television stations.

The frequency of PTV signals carried by a cable system is shown in Table III.

TABLE III

No. of PTV Stns. Carried	No. of Cable Systems	%
0	0	0
1	119	56.4
2	73	35.4
3	14	6.7
4	2	1.0
5	1*	.5

* Planned carriage; precise information not available.

As presently understood, any system carrying more than two PTV stations has the option to drop under the new rules. As this data table indicates, less than 10 percent are in this absolute position.

The final cable profiles are accurate enough for this project, however, some information is more reliable than others. System ownership changes quickly, though it is not critical for this carriage analysis. PTV carriage data is believed to be accurate, as well as counties served and the county off-air viewership information utilized. The least reliable data is that of unused channels and satellite signals carried. These are the most volatile in the cable service mix.

The information on channel capacity is an area of minor concern. Confirmation of this data proved difficult in that many cable system front offices only had total channels utilized information, thus the Factbook had to be relied upon for most of this data.

Determination of Mandatory Carriage and Identification of "Must-Adds"

The 209 system profiles were scanned for compliance with the new must-carry rules. This included a check of each station carried for the 50-mile distance from PTV city of license to the cable community of franchise. The exact location of each cable system head end is not readily available, thus I used the principal city of franchise as an approximation. A check was then made of the Grade B contours of the PTV stations to determine if the cable system falls within or near this line.[56]

Again, I used available Grade B information to approximate the TASO level two standard for carriage. Once I determined a PTV station was qualified to be mandatorily carried, a check against the channel capacity and other PTV signals carried indicated if the system carried the minimum number required. In the event that the system did not carry the minimum, a check was made of Grade B contours to determine the possibility of other PTV stations not carried that may qualify.

If one existed, the system was placed into the "likely change" category by way of non-mandatory carriage compliance (B1). For systems greater than 53 channels, only two qualified signals need to be carried, if available. Less than 54 channel systems requires only one qualified PTV signal.

I found that 15 Michigan systems may not meet the new mandatory carriage rules. Of these 15 systems, five systems were under 54 channels and were found to be carrying only non-qualified PTV stations when a non-carried qualified station existed. There is some surprise here, in that all five stations not carried probably qualified under the old mandatory carriage rules. Of the 10 larger systems, the situation is not nearly as clear. Seven systems are in the crowded Detroit area and their exact status with regard to the non-carried station and old rule compliance may be in doubt. However, it appears that with the use of the relaxed signal criteria and the 50 mile rule, that mandatory carriage could now be required. A more exacting engineering study may be necessary to prove this contention.

The remaining three systems are out state, two of which probably did not meet old rule compliance and the third probably did. In all likelihood, the majority of those systems not complying with the new rule did not comply with the old. These systems are shown in Table IV.

TABLE IV

Potential Cable Drops of PTV by Cable System

Name	Station	# of Subscribers	Profile Class	Profile #	Reason	Confidence
Bay City	WKAR	20,526	C1	18	3rd PTV Viewership	Medium
Brighton	WUCM	3,668	C1	28	3rd PTV Viewership	Medium
Caro	WKAR	1,086	C1	33	2nd PTV Viewership	Medium
Cass City	WFUM	519	B4	36	2nd PTV Viewership	Low
Midland	WKAR	10,150	C1	127	3rd PTV pt-time Viewership	Medium
Pinconning Township	WCMU	?	B4	157	2nd PTV 12 channels	High
	6	35,949				

Test For "Change Unlikely" in PTV Carriage

Once the non-compliance systems had been identified and placed in the "change" category, the remaining 194 system profiles were examined for minimal-only compliance to the new rules (A2 categorization). Ninety-one systems met only minimum must-carry rules for PTV carriage and were placed in the "change not likely" category. Because of management expressed intent to carry, two more systems were classified "not likely" (A1). The remaining profiles were examined for an A3 condition, where only one non-qualified PTV signal was carried (and no qualified signals exist) but meet the commercial viewing standard for carriage. Twenty systems fell into this category, most of which were smaller out state and Upper Peninsula systems with only one PTV signal available and outside of mandatory carriage range. Often, minimal commercial competition results in "enviable" viewership statistics for the PTV stations carried. Their place on the cable dial seems secure.

The last tests in this series, A4 and A5, categorically exclude all remaining 54 and greater channel systems and all two PTV carriers with more than one unused channel or excess duplicated network competition greater than three, respectively. Five systems are categorized A4 and 40 systems A5. The excess capacity of the 54 plus channel systems makes the likelihood of PTV drops low. These sytem operators want to keep every "free" signal they have. The A5 group is a little less assured but with open channels available and commercial alternative drop possibilities available, they seem reasonably secure in the short run. The 36 remaining profiles move onto the drop tests.

Drop Tests and Station Identification

This round of examinations selects sequentially systems where management expressed intent, a saturated condition or absolute small channel capacity imposes a motivation to drop non-must-carried PTV stations that impose a "burden" on the system.

No cable representatives I spoke with (I contacted decision makers representing over 30 percent of the systems) indicated that they intended to drop any PTV station. Of course, I was not able to contact those responsible for the three systems that did drop PTV stations within the last year or so. The Ann Arbor system, the Three Rivers system, and most recently the Fenton system dropped WKAR, WGVC, and WKAR, respectively.

Nationwide, a recent PTV drop count indicated that 72 stations have been dropped from carriage since July, 1985.[57] Interestingly enough, the Three Rivers system may have to reinstate the WGVC system station, WGVK in Kalamazoo, under the new (or old) rules.

The remaining profiles were then examined for saturated systems with one or more non-must-carry signals and less than three duplicated network signals or less than five satellite signals. The B3 test caught only one system, the same Ann Arbor system that dropped WKAR within the past year (and WFUM two years before) could drop WGTE out of Toledo for further expansion of satellite or other services. Though within 50 miles and Grade B contour, only WTVS need be carried for new rule compliance. WGTE does not meet the commercial viewing standard for carriage and could in the near future be deemed an unnecessary "burden."

Two more systems may have reason to drop PTV stations. The B4 qualification of 12 channels or less with one or more non-must-carried PTV stations, flagged the Cass City system in Tuscola county. This 12 channel system at last information carries both WFUM and WUCM. Given the close proximity to the new WUCM repeater at Ubly, if a PTV station is to be sacrificed for a new service, WFUM is likely the one to go, despite reasonable off-air viewership county-wide.

The other system is a confirmed 12 channel system in Pinconning township that carries both WCMU and WUCM. WUCM is the greater viewed off-air in the county and a change could see WCMU dropped.

The Residual Group

The remaining 33 systems are placed in the residual indeterminate category, in that no other categorization under this scheme was found. However, some are more indeterminate than others. I identified four systems that may lean towards a change in PTV carriage. Three of these carry three PTV stations where at least one has little viewership in the county and the fourth has a second PTV station so far out of its Grade B contour that I seriously question the validity of the data. These four systems are included in Table IV on page 32.

Review of Changes by Station

Table V shows the changes anticipated by this project for each of the seven Michigan public television stations.

TABLE V

Potential Carriage Change By Station

Station	Profile #	& Class	System Name	Subscribers	Potential Change	Reason
WCMU	153	B1	Pentwater	496	add	1st must-carry
	157	B4	Pinconning Twp	?	drop	2nd PTV, no viewers
Net change				Less than 496	0	
WFUM	29	B1	Brown City	?	add	1st must-carry
	36	B4	Cass City	-519	drop	2nd must-carry
	42	B1	Chesterfield	17,281	add	2nd must-carry
	56	B1	Dearborn Hgts	13,059	add	2nd must-carry
	68	B1	Farmington	17,784	add	2nd must-carry
	114	B1	Livonia	19,656	add	2nd must-carry
	189	B1	Sterling Hgts	94,000	add	2nd must-carry
	204	B1	Warren	26,160	add	2nd must-carry
Net change				Greater than 187,441	+6	
WGVC/WGVK	190	B1	Sturgis	2,901	add	2nd must-carry
	196	B1	Three Rivers	3,570	add	2nd must-carry
Net change				6,471	+2	
WKAR	18	C1	Bay City	-20,526	drop?	3rd PTV, few viewers
	33	C1	Caro	- 1,086	drop?	2nd PTV, no viewers
	127	C1	Midland	-10,150	drop?	3rd PTV, no viewers,
Net change				-31,762	-3?	part-time
WTVS & WNMU: No change anticipated						
WUCM	28	C1	Brighton	- 3,668	drop?	3rd PTV, no viewers
	34	B1	Caseville	+ 900	add	must-carry
	134	B1	Mt.Pleasant	+ 6,292	add	2nd must-carry
Net change				+ 3,524	+1?	

WCMU/WCML/WCMV

The WCMU system of stations exists in an environment of little PTV competition in the northern lower peninsula. The new must-carry rules are of no real impact as the single cable system to be added appears to have met the old must-carry rules.

WFUM

Of the Michigan stations, WFUM has the greatest potential of net change. WFUM's proximity to the cable system dense Detroit market makes the apparent subtle rule change to the TASO standard for minimum signal delivery (along with the 50 mile rule) a significant opportunity to expand into this urban market and provide alternative programming to Detroit's WTVS. As many as six major Detroit area systems with over 185,000 subscribers could be affected.

WGVC/WGVK

The WGVC system had only two anomalies come to the fore. These systems south of the Kalamazoo station WGVK are likely to be more clear cut cases of systems that should be carried under the new rule and in the case of the Three Rivers system, see the return of the WGVC signal to the cable systems.

WKAR

WKAR has seen two drops in the past year, at Ann Arbor and Fenton. The near future seems a bit more secure in that of the three systems listed in Table V, all are classified as Cl, residual indeterminate cases. Even in the event of carriage loss, the fringe area aspect should have minimal impact on WKAR or the subscribers losing the service.

WNMU

Like WCMU, WNMU seldom has PTV carriage competition and I foresee no changes in the future.

WTVS

Though no change in carriage is foreseen for WTVS, this Detroit station's near monopoly on PTV programming in the Detroit area may be encroached by WFUM to the north and WGTE (Toledo) from the south. Detroit area cable system subscribers could have alternative viewing made available under the new must-carry rule.

WUCM

WUCM has recently signed on a translator station near Ubly in Huron county which should dramatically increase WUCM's service to the thumb area. The possible changes I foresee in the near future, include the addition of the Mt. Pleasant cable system. Though this may be dependent upon the exact location of the Mt. Pleasant system head end for minimal signal delivery, Mt. Pleasant viewers could have an alternative to WCMU programming.

CONCLUSIONS AND COMMENTS

Michigan Summary

Michigan public television cable viewers are not going to be harmed to any significant degree with regard to "diversity and coverage" of PTV programming by the new must-carry rule. In fact, the most signficant effect of changes is apt to be an increase in diversity of PTV offerings in some areas. The total net carriage changes for Michigan PTV stations, I estimate as six added system channels and over 165,000 subscribers who may view that programming. As established before, these changes are primarily in the Detroit metropolitan area.

On the Future of Must-Carry

The ultimate impact of the Quincy decision is yet to be seen. Should the new rules withstand federal court scrutiny and be allowed to expire in five years, the economic, political, technological and social factors present then will influence the private sector decision-makers as to who is provided what "public good" programming services by PTV stations to cable subscribers. As a student of public administration theory, I find this possibility appalling. This situation would exhibit an abandonment of appropriate governmental function. Others of course, would claim that the "marketplace" should decide and that the A/B switch places decision-making in the hands of the viewer. The technological quality of a viewer's receiving system (where possible) will not replace or complement the commercial cable capabilities. The education of the American public is more apt to become an education of the FCC commissioners. In this day and age of remote control and satellite picture quality, the A/B switch will go unused.

It is my hope that the powers that be (the FCC and Congress) take note of the situation and provide for continued mandatory carriage of PTV on cable systems thus ensuring the coverage and diversity goals of the Public Broadcasting Service.

In The Interim

Until the expiration of the new rules, those stations that may benefit from expanded coverage may have only that period of time to establish themselves in the new market. The same reasoning that decided they would not otherwise be carried may still exist after the must-carry rule expires and the new coverage and services provided could be lost. There may be an argument against opportunistic expansionism based on the limited time frame for a successful commercially competitive market integration plan. Certainly such an endeavor is not risk or monetarily free. Mandatory carriage is contingent upon compliance and as noted in this study, compliance was not 100 percent even under the old rule. The burden of proof rests with the stations. Lawyers and consulting engineering fees could be substantial. Even after this hurdle, the programming service and promotion considerations must be examined and met. Consideration must also be given to the effect of these changes upon the present viewers served. Such a move should be taken cautiously.

Post-Facto Ponderings

In retrospect, I did find one significant structural bias in this study. Though considerable effort was placed in the identification of PTV stations that may be dropped outside of the minimal mandatory carriage compliance evaluation (B1), no structural process was present to evaluate non-rule related additions due to such factors as absolute viewership or comparative viewership criteria of non-carried stations. In a study of total loss of mandatory carriage rules, such an oversight could be damaging.

END NOTES

1
"Localism" of course is a political concept, not exclusive to broadcast regulation.

2
FCC, "FCC Adopts New Regulatory Program For Cable Carriage of TV Stations (MM Docket 85-349)," August 7, 1986, press release.

3
The old rules required carriage of Grade B contour signals on systems with no limitation on number. Under the new rules, an absolute 50 mile range from city of license to cable system head end with the stipulation of a minimum of a level two TASO signal strength standard must be present for qualification of mandatory carriage. The differential between "Grade B" and the 50 mile rule and "Grade B" and the TASO level two standard proved to be of some signficance in situations where the PTV transmitter is of some distance from the city of license and where a large number of systems are located near the station's Grade B contour. TASO level two is a lower minimum requirement than Grade B and could result in an extended carriage area. Likewise, being within 50 miles of the city of license, may be well outside Grade B and TASO level two contours. Thus, strict attention must be paid to both in determining mandatory carriage qualification.

4
Television signals, for the most part, require an unobstructed line of sight from the transmitting antenna to the receiving antenna. At the lower VHF TV channels (2-13) a certain amount of signal bending with the terrain does take place; but at the upper UHF channels (14-83) hills, mountains, buildings may produce shadowed areas where reception is difficult. UHF channels are also more prone to multi-path distortion or "ghosting." This occurs when the television signal bounces off of a reflective object, such as a building, water tower, airplane, etc. and arrives at the receiving antenna a short time after the direct path signal. The UHF channels are also antennuated more by the atmosphere and wire transmission mediums than VHF channels.
The FCC allows greater output power to overcome this factor, however, generating UHF signals is at this time still less efficient than generating VHF signals with regard to power consumption and thus, UHF incurs an even greater cost to operate. These factors combined are often referred to as the "UHF handicap." It has been said amongst those in the business that if God had intended good, clear, ghost-free reception, he would not have invented UHF.

5
George H. Shapiro, "Federal Regulation of Cable," in Cable Handbook 1975-1976, ed. Mary Louise Hollowell (Washington, D.C.: Communications Press, Inc., 1975,) p. 17.

6
FCC, Inquiry Into the Economic Relationship Between Broadcasting and Cable Television, 71 FCC 2d 632, at 39 and 40.

7
FCC, First Report and Order in Dockets 14895 and 15233, 38, FCC 683, (1965)
A Grade A signal is one that can be received in 90 percent of the contour area 70 percent of the time.
A Grade B signal can be received in 90 percent of the area 50 percent of the time.

8
FCC, Second Report and Order in Dockets 14895, 15233 and 15971, 2FCC 2d 725(1966).

United States v. Southwestern Cable Co., 392 U.S. at 178, 88 S.Ct.at 2005.

10 Shapio, p. 24.

11 Steven R. Rivkin, Cable Television: A Guide to Federal Regulations, (N.Y.: Crane, Russell & Co., Inc., 1974), pp. 17,24,25.

12 Economic Inquiry, p.655.

13 Economic Inquiry, pp.656-657.

14 Paul W. MacAvoy, Deregulation of Cable Television, (Washington, D.C.: American Enterprise Institute for Public Policy Research, 1977), p.70.

15 Economic Inquiry, p. 683.

16 Economic Inquiry, p. 654.

17 Economic Inquiry, p. 721.

18 Comments of the Corporation for Public Broadcasting, The National Association of Public Television Stations, and The Public Broadcasting Service., Re: MM Docket No. 85-349, p. 24.

19 In 1986 over 100 program services are available to cable operators via satellite. The modal system has about a 30 channel capacity. Television and Cable Factbook, Television Digest, Inc., Washington, D.C. 20036, pp. C-33/C-43, A-45.

20 Comments CPB, et. al., p. 14.

21 Comments CPB, et. al., p. 16.

22 Comments CPB, et. al., p. 20.

23 Reply Comments of the Corporation For Public Broadcasting, The National Association of Public Television Sations, and the Public Broadcasting Service, Re: MM Docket No. 85-349, p. 6.

24 Reply CPB et. al., p. 19.

25 Factbook, p. A-45. At the time of Carter Mountain, only about 1,000 systems serving 950,000 subscribers existed. There are now 7,600 systems serving 37,500,000 subscribers.

26 "Other regulations" may include technical exclusion of some channels, because of interference to aeronautical navigation and allowing franchise requirements for public access, educational and governmental, as well as third party leased channels. U.S. House Report, No. 98-934, p. 30.

27 Quincy Cable TV, Inc. v. FCC, 768 F.2d. 1434 (D.C. Cir. 1985), p. 2.

28 Quincy, p. 1438.

29 Economic Inquiry, p. 645.

30 Quincy, p. 1440.

31 FCC, First Report, 38 FCC at 701.

32 Economic Inquiry, p. 659.

33 Quincy, pp. 1447-1450.

34 Home Box Office, Inc. v. FCC., 567 F. 2d at 48.

35 Quincy, p. 1457.

36 Quincy, p. 1451.

37 Quincy, p. 1463.

38 CPB Report, Vol. V. No. 24, Par. 1.

39 Craig Leddy, "Must-carry Proposal Sparks Industry Tension," Electronic Media, March 5, 1986, p. 3.

40 Comments CPB, Et. al., pp. 9-10.

41 Comments CPB, et. al., p. 30.

42 Comments CPB, et. al., p. 24.

43 Comments CPB, et., al., pp. 21-23.

44 Submission of Joint Inquiry Agreement, Re: MM Docket No. 85-349., Washington, D.C., Jan., 1986.

45 Reply CPB, et. al., pp. 15-20.

46 "Mixed Bag on Must-carry Comments," Broadcasting, May 5, 1986, p. 61.

47 Broadcasting, May 5, 1986, p. 61.

48 Craig Leddy, "Must-carry Plan Pushed by Congress," Electronic Media, June 16, 1986, p. 3.

49 Craig Leddy, "FCC Expected to Adopt Must-Carry Agreement," Electronic Media, July 21, 1986, p. 38.

50 Alex Zavistovich, "Must-Carry Rules Announced," TV Technology, October, 1986, p.7.

51 William Mahoney, "Must-Carry Opponents Predict New Rules Will Die," Electronic Media, October 20, 1986., p.8.

52 Factbook, pp. B-463-497.

53 Factbook, C-33-43.

54 U.S. Congress, Washington, D.C., G.P.O. 1984, Cable Communications Policy Act 1984, Publication 98-549.

55 Economic Inquiry, p. 677.

56 Cable Coverage Atlas, Television Digest, Inc., Washington, D.C., 20036.

57 NAPTS/PBS Press Statement, Washington, D.C., August 8, 1986.

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FCC. "FCC Adopts New Regulatory Program For Cable Carriage of TV Stations (MM Docket 85-349)." Washington, D.C.: August 7, 1986. Press Release.

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APPENDIX I

Simplified Cable System Profiles and Classification

Profile #	Class	System Name	Ch. Capacity	Subscribers	PTV Stns. Carried
1	A5	Addison	40	424	WGTE, WFUM
2	A5	Adrian	26	7,942	WTVS, WGTE
3	X	Akron			
4	A3	Alanson	36	388	WCML
5	A2	Albion	21	1,855	WKAR
6	A2	Allegan	25	4,800	WGVC
7	A5	Alma	20	5,675	WKAR, WCMU
8	C1	Almont Twp	40	?	WTVS, WFUM
9	A2	Alpena	35	9,547	WCML
10	B3	Ann Arbor	35	15,292	WTVS, WGTE
11	X	Antwerp Twp			
12	X	Arenac			
13	A2	Au Gres	35	2,002	WUCM
14	A5	Bad Axe	21	1,096	WCML, WUCM
15	A2	Baldwin	35	?	WCMU
16	A2	Bath	35	640	WKAR
17	C1	Battle Creek	35	20,168	WKAR, WGVC
18	C1	Bay City	24	20,526	WCMU, WKAR, WUCM
19	A2	Bedford Twp	54	24,300	WTVS, WGTE
20	C1	Benton Harbor	20	2,593	WTTW, WNIT
21	C1	Benton Twp	20	2,268	WTTW, WNIT
22	A5	Beulah	35	1,328	WCML, WPNE
23	A5	Big Rapids	32	4,306	WCMU, WGVC
24	A2	Birmingham	62	13,288	WTVS, WFUM
25	B1	Blissfield	35	517	WKAR
26	A3	Boyne City	12	?	WCML
27	A5	Bridgeport Twp	35	2,636	WFUM, WUCM
28	C1	Brighton	20	3,668	WTVS, WKAR, WUCM
29	B1	Brown City	35	?	WUCM, WTVS
30	A2	Cadillac	54	5,018	WCMU
31	A3	Calumet	21	4,063	WNMU
32	A5	Capac	35	194	WTVS, WFUM
33	C1	Caro	21	1,086	WKAR, WUCM
34	B1	Caseville	35	900	WCMU
35	A3	Caspian	15	800	WNMU
36	B4	Cass City	12	519	WFUM, WUCM
37	A5	Cassopoliss	35	602	WTTW, WNIT
38	A3	Charlevoix	12	6,458	WCML
39	A2	Charlotte	22	1,395	WKAR
40	A3	Cheboygan	35	4,371	WCML
41	C1	Chesaning	35	332	WFUM, WUCM
42	B1	Chesterfield Twp	54	17,281	WTVS
43	A4	Clarkston	57	3,400	WFUM, WTVS, WKAR
44	X	Climax Twp		139	
45	A5	Coldwater	30	5,187	WKAR, WBGU
46	X	Coleman	35	295	
47	A2	Colon	35	698	WKAR
48	A5	Columbia Twp	42	897	WTVS, WKAR
49	A4	Commerce Twp	60	2,000	WTVS, WKAR, WFUM

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Profile #	Class	System Name	Ch. Capacity	Subscribers	PTV Stns. Carried
50	C1	Comstock Twp	24	?	WGVC, WMUS, WTTW, WTVS, WKAR
51	A2	Concord	35	350	WKAR
52	A5	Constantine	36	923	WNIT
53	A3	Crystal Falls	21	820	WNMU
54	C1	Davison	30	5,671	WFUM, WTVS, WKAR, WUCM
55	C1	Dearborn	52	18,000	WTVS, WKAR
56	B1	Dearborn Heights	128	13,079	WTVS
57	C1	Deckerville	22	?	WUCM, WTVS
58	X	Detroit	78		
59	A2	Dowagiac	36	12,54	WNIT
60	C1	Durand	36	3,100	WKAR, WFUM, WUCM
61	A2	East Detroit	52	8,350	WTVS
62	A3	East Jordan	12	788	WCML
63	A5	East Lansing	36	14,119	WTVS, WKAR
64	A5	Edwardsburg	35	?	WNIT, WTTW
65	A2	Elk Rapids Village	21	2,479	WCMU
66	A2	Empire	35	1,200	WCML
67	A3	Escanaba	36	8,064	WNMU
68	B1	Farmington	56	17,784	WTVS
69	A5	Fenton	30	4,901	WFUM, WTVS
70	A4	Flint	54	74,338	WUCM, WTVS, WKAR, WFUM
71	A2	Forsyth Twp	21	1,318	WNMU
72	A2	Fremont	35	417	WGVC
73	A2	Garden City	56	7,250	WTVS, WGTE
74	A3	Gaylord	12	?	WCML
75	A2	Grand Haven	?	7,933	WGVC
76	A2	Grand Rapids	40	88,300	WGVC
77	A2	Grass Lake	36	74	WKAR
78	A3	Grayling	14	1,268	WCML
79	A5	Greenville	35	4,225	WKAR, WGVC
80	A2	Grosse Point Woods	36	12,075	WTVS
81	A5	Hamburg Twp	36	1,000	WTVS, WKAR
82	A5	Harbor Beach	21	1,041	WCML, WUCM
83	A2	Harrison	12	300	WCMU
84	A2	Hastings	21	1,150	WGVC
85	A2	Hazel Park	56	3,768	WTVS, WFUM
86	A2	Highland Park	36	1,870	WTVS
87	A2	Hillman Twp	?	167	WCML
88	A5	Hillsdale	35	3,618	WKAR, WTVS
89	A2	Holland	21	5,791	WGVC
90	A2	Holland Twp	36	7,228	WGVC
91	A2	Homer	29	?	WKAR
92	A3	Houghton	43	4,476	WNMU
93	A2	Howard City	35	545	WGVC
94	B1	Hudson	36	744	WKAR
95	A2	Hudsonville	64	1,033	WGVC
96	C1	Imlay City	40	410	WTVS, WFUM
97	A2	Inkster	54	4,612	WTVS, WGTE

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Profile #	Class	System Name	Ch. Capacity	Subscribers	PTV Stns. Carried
98	C1	Ionia	35	2,762	WKAR, WGVC
99	A3	Iron Mountain	52	5,252	WNMU
100	A3	Iron Mountain	12	700	WNMU
101	A1	Iron River	21	12,32	WNMU
102	A2	Ironwood	21	6,922	WLEF
103	A2	Jackson	54	11,795	WKAR
104	A2	K.I. Sawyer AFB	21	1,892	WNMU
105	C1	Kalamazoo	35	32,900	WGVC, WTTW, WTVS
106	A2	Kalkaska	21	605	WCML
107	A2	Lake Odessa	35	475	WKAR
108	A2	Lake Twp	35	341	WUCM
109	C1	Lansing	35	49,687	WTVS, WKAR
110	A2	Leslie	35	755	WKAR
111	A3	Lexington	35	264	WFUM
112	A2	Lincoln	12	109	WCML
113	X	Litchfield			
114	B1	Livonia	62	19,656	WTVS
115	A2	Lowell	54	804	WKAR, WGVC
116	C1	Ludington	37	1,465	WMVS, WGVC, WCMU
117	A3	Mackinaw City	35	420	WCML
118	A5	Madison Heights	52	6,597	WTVS, WFUM
119	A5	Manistee	21	3,320	WPNE, WCMW
120	A5	Manistique	21	1,923	WNMU
121	A2	Manton	21	786	WCML
122	C1	Marlette	35	?	WTVS, WFUM
123	A2	Marquette	36	16,313	WNMU
124	A2	Marshall	21	2,065	WKAR
125	A5	Mayfield Twp	35	2,796	WTVS, WFUM
126	X	Mayville			
127	C1	Midland	52	10,150	WCMU, WKAR, WUCM
128	C1	Midland Co.	21	1,071	WCMU, WUCM
129	A2	Monroe	54	6,293	WTVS, WGTE
130	A5	Monroe	52	5,774	WTVS, WGTE
131	C1	Montrose	35	263	WUCM, WKAR, WFUM
132	A1	Morenci	36	673	WKAR, WGTE
133	A2	Mt. Clemens	21	1,523	WTVS
134	B1	Mt. Pleasant	54	6,292	WCMU
135	A2	Munising	35	1,415	WNMU
136	A2	Muskegon	35	33,000	WGVC
137	A2	Negaunee	55	1,040	WNMU
138	A5	Newberry	17	?	WNMU
139	A5	Niles	31	?	WTTW, WNIT
140	A5	North Branch	40	495	WTVS, WFUM
141	A3	Norway	36	1,458	WNMU
142	A5	Oak Park	52	6,170	WTVS, WFUM
143	A2	Olivet	35	504	WKAR
144	A2	Onaway	35	550	WCML
145	A2	Onekama	35	392	WCMU
146	A5	Ontonagon	20	2,655	WPSE, WNMU

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Profile #	Class	System Name	Ch. Capacity	Subscribers	PTV Stns. Carried
147	C1	Oscoda	35	7,900	WCML, WUCM
148	A2	Oshtemo Twp	21	1,137	WGVC
149	A2	Ovid	?	361	WKAR
150	A5	Owosso	26	4,674	WKAR, WFUM
151	A4	Oxford	54	1,800	WFUM, WTVS, WKAR
152	C1	Paw Paw Village	19	2,303	WGVC, WKAR
153	B1	Pentwater	21	496	WGVC
154	A2	Perry	?	3,782	WKAR
155	A3	Petoskey	35	4,609	WKAR
156	A2	Pigeon	35	562	WUCM
157	B4	Pinconning Twp	12	?	WCMU, WUCM
158	A5	Plymouth	52	16,925	WTVS, WFUM
159	A2	Port Austin	36	510	WUCM
160	A2	Port Huron	52	15,055	WTVS
161	A2	Portland	35	698	WKAR
162	A2	Potterville	35	627	WKAR
163	C1	Redford	37	9,820	WTVS, WGTE
164	A2	Reed City	21	1,230	WCMU
165	A2	Reese Twp	35	776	WUCM
166	A2	Richfield Twp	17	4,918	WCMU
167	A2	Richland	54	291	WGVC
168	X	Richmond			
169	A2	Richmond Twp	?	634	WTVS
170	A2	Rockford	28	3,728	WGVC
171	A2	Rogers City	20	1,259	WCML
172	A2	Romulus	60	290	WTVS, WGTE
173	C1	Rose City	50	290	WCMU
174	A2	Roseville	35	10,286	WTVS
175	A4	Royal Oak	108	53,530	WTVS, WFUM, WGTE
176	A2	Saginaw	54	25,879	WFUM, WUCM
177	A3	St. Ignace	35	1,100	WCML
178	A5	St. Johns	30	1,373	WKAR, WCMU
179	A5	St. Joseph Twp	35	5,015	WTTW, WNIT
180	C1	Saline	35	3,219	WTVS, WGTE
181	A2	Sandusky	35	?	WFUM
182	A3	Sault Ste. Marie	21	3,964	WCML
183	C1	Sebewaing	35	?	WFUM, WUCM
184	A2	South Haven	35	4,247	WGVC
185	C1	South Lyons	49	742	WTVS
186	A5	Southfield	52	17,909	WTVS, WFUM
187	A2	Stanton	?	813	WCMU
188	A5	Stephenson	30	?	WPNE, WNMU
189	B1	Sterling Heights	54	94,000	WTVS
190	B1	Sturgis	54	3,570	WNIT
191	A2	Summit-Leoni	30	9,753	WKAR
192	A2	Taylor	52	37,096	WTVS
193	A2	Texas Twp	?	1,220	WGVC
194	C1	Thetford Twp	?	508	WKAR, WFUM
195	C1	Thomas Twp	35	5,800	WUCM, WKAR, WFUM

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Profile #	Class	System Name	Ch. Capacity	Subscribers	PTV Stns. Carried
196	A5	Three Oaks Twp	35	7,850	WTTW, WNIT
197	B1	Three Rivers	60	2,901	WGVC, WNIT
198	A2	Traverse City	54	11,700	WCMU
199	A2	Twin Lake	35	360	WGVC
200	A2	Union City	35	?	WKAR
201	A2	Van Buren Twp	60	1,508	WTVS, WGTE
202	A5	Vassar	22	810	WUCM, WFUM
203	A5	Vicksburg	36	1,597	WGVK, WNIT
204	B1	Warren	54	26,160	WTVS
205	A2	Waterford Twp	54	19,500	WFUM, WTVS
206	C1	Water Valiet	40	2,414	WGVC, WNIT, WTTW
207	A2	Wayland	35	604	WGVC
208	B1	Wayne	60	3,725	WTVS
209	A2	Webber Twp	35	?	WUCM
210	A2	Webberville	36	2,523	WKAR
211	A2	Whitehall	30	2,287	WGVC
212	A2	Woodhaven	54	14,151	WTVS, WGTE
213	C1	Wurtsmith AFB	32	1,470	WCML, WUCM
214	A5	Wayandotte	52	7,200	WTVS, WGTE
215	A5	Yale	36	185	WTVS, WFUM
216	A2	Yankee Springs	35	519	WGVC
217	A2	Yates Twp	35	?	WUCM
218	A2	Ypsilanti	35	8,189	WTVS
				Greater than 1,249,443	

Summary of # of Cable Systems Per Cable Profile Classification Category as Shown in Flow Chart on Page 26 and in Table I, Page 27.

CABLE CLASSIFICATION:	X	A1	A2	A3	A4	A5	B1	B2	B3	B4	C1
# of Cable Systems	9	2	91	20	5	40	15	0	1	2	33

APPENDIX II

Top 10 MSO's and Number of Michigan Owned Systems

Rank	Ownership	# of Michigan Systems
1	TCI-Taft Cablevision Assoc.	28
2	Centell Communication Co.	23
3	Omega Communications, Inc.	9
4	ContinentaL Cablevision, Inc.	9
5	VCA Telecable, Inc.	8
6	Bresnan Communication Company	6
7	Pioneer Cablevision	6
8	Edmondson, Louis E.	5
9	First Pic Cable TV	5
10	Comcast Corporation	5
	TOTAL	105